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Community Contact

Manitoba Aboriginal and Northern Affairs

"The children absolutely love this program...
they are all so eager to learn."

Ryan Leroux, Lifesaving Society



Waasagomach youngsters jumped in to provide enthusiastic participation in the Northern Water Smart program offered by the Lifesaving Society in several northern Manitoba communities this past summer (see full story inside).

Welcome to the Community Contact

In this issue we are pleased to present information and stories on initiatives and developments in education with features on University College of the North, the Northern Forest Diversification Centre and Frontier School Division. You'll find an article on student financial assistance and meet a young student from the north as well as learn about a new water safety program and an interesting leadership development initiative in the Parkland Region.

With this issue we are also introducing two new features – Public Works, which will focus on topics of interest to community public works employees and Certification Corner which is intended to give waterworks operators practice answering questions similar to questions found on certification exams. Be sure to let us know if you need additional copies of Community Contact for you public works employees and operators.

WATER SAF

People use boats to make a living and as basic transportation, yet countless fisherman and water taxi operators admit they cannot swim

Photos from Garden Hill community



WATER SAFETY EDUCATION Goes North

Of the two dozen or more people who drown each year in Manitoba, about half are Aboriginal people. About a quarter of accidental drowning occurs in First Nations Communities. Swimming lessons, life jackets and basic boat safety could prevent the majority of these tragedies.

This summer, in his capacity as Northern and Remote Communities Summer Co-ordinator for the Lifesaving Society, 21-year-old lifeguard and water safety instructor Ryan Leroux, worked to combat drowning through public education designed to reduce high-risk behaviour by people in, on or around water.

Participating with Human Resources Development Canada (Summer Career Placements Initiative), the Province of Manitoba and Manitoba Community Services Council Inc., Leroux visited six remote communities to offer water safety education this summer in the form of the Lifesaving Society's newly developed Northern Water Smart campaign.

The six communities included Oxford House, Garden Hill, Waasagomach, Wabowden, Lynn Lake and Sandy Bay. In these and many other remote northern Manitoba locations, water safety education has rarely been offered, if ever. Leroux spent a week in each location and offered four individual programs free of charge in each community.

The Swim to Survive program offers swimming lessons based on three skills considered the minimum required to survive an unexpected fall into water:

- orient oneself at the surface after an unexpected entry
- support oneself at the surface
- swim to safety

Leroux observes that learning to swim is the most immediate and effective way to prevent drowning and water-related injury. He says many remote northern communities are almost surrounded by

lakes and rivers. People use boats to make a living and as basic transportation, yet countless fisherman and water taxi operators admit they cannot swim.

The Boat Operator Accredited Training (BOAT) course provides safe boating knowledge for small craft operators. It encourages boaters to use life jackets and keep emergency rescue equipment handy. Based on Canadian Coast Guard standards, the course leads to a pleasure craft operators license card that will be mandatory by April, 2009.

A third program called Within Arms' Reach aims at providing parents and childcare providers with tools to recognize drowning dangers and develop safety plans for various situations.

"Drowning can take as little as 10 seconds and occur in just inches of water... in bathtubs, ditches, beaches and even buckets," says Leroux. "Never leave a child alone near the water."

The fourth program is First Aid Training. Leroux believes everyone should have some knowledge of first aid. It is increasingly common for employers to expect job applicants to have first aid training.

"Response to the programs has been phenomenal," says Leroux. "The children absolutely love this program and I love teaching them... they are all so eager to learn."

Leroux is not without concerns, though. He knows water safety knowledge will disappear without lessons offered on a regular basis. He's also aware that parents and elders are important water safety role models and he appreciates their co-operation in attending and allowing their children to attend Lifesaving Society programs.

Visit their website at www.mb.lifesaving.ca or phone their Winnipeg office at 204-956-2124 for more information.



Small group work – developing daily, weekly and monthly summer youth activity plans.

Parkland Recreation

Thirty recreation summer students and recreation directors gathered at Rorketon School in Rorketon, Manitoba this past July 12 and 13 to take part in the First Aboriginal Summer Leadership Training Workshop.

Co-ordinated by John Sabiston, recreation director, Stew Sabiston, recreation and wellness consultant and Karen Boucher, regional youth worker, the workshop fea-

tured exciting, fun, interactive sessions and great sharing. Participants were from 11 communities across the Parkland region.

Many Aboriginal communities hire students as summer recreation employees. If band or community councils don't have the resources to provide proper training, support and supervision, the quality of community recreation programs may suffer. Aboriginal and Northern Affairs, the

Northwest Metis Council and various Aboriginal communities and agencies addressed the problem this summer with a two-day training workshop.

Cynthia Menzies was the main facilitator. Her workshops taught summer students and recreation directors from Northern Affairs, Metis and First Nations about presenting more effective summer youth programs. Menzies has gathered plenty



Workshop participants gather at the end of day two.

Overall recreation workshop objectives:

- recreation program skills for the Parkland region
- community-relevant programs
- leadership among Aboriginal summer students
- summer employee and program supervision skills for recreation directors
- collaboration with agencies, organizations and communities
- a community network for continuing support
- improved quality of life for participating youth

Workshop Succeeds

of experience working with First Nations communities in the North Interlake region over the past seven years.

The workshop covered issues such as:

- effective planning of summer programs to include a variety of fun activities
- conflict resolution and coping with behaviours of youth and children
- minimizing risks and hazards in the playground
- rainy day activities
- developing lesson plans and evaluations
- adapting sports and games for groups
- Swim to Survive session at Manipogo Beach

Each participant took home an activity bag containing practical resources and supplies so students could offer games and activities they experienced at the workshop. Participants responded overwhelmingly that they would like to see the workshop offered annually.

Manitoba Aboriginal and Northern Affairs thanks the Northwest Metis Council, Crane River Recreation Committee, Rorketon School, Frontier School Division, Lifesaving Society of Manitoba and Sport Manitoba for their support of this workshop.

For more information, please contact
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OR

Faron Cook
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Email: fcook@gov.mb.ca

Sponsored by
Manitoba Aboriginal and
Northern Affairs

GETTING STARTED

If you feel a little overwhelmed by the details involved in selecting your educational path, you are not alone. A guidance counsellor at your local high school can help you choose a direction.

Once you've decided on university or college, a UCN counsellor can help you get your university education off to a good start. Call or visit your nearest UCN location to ask for a calendar of courses and assistance in choosing the right ones for you:

The Pas 204-627-8500,
or toll free 866-627-8500

Thompson 204-677-6450,
or toll free 866-677-6450

Flin Flon 204-687-1560

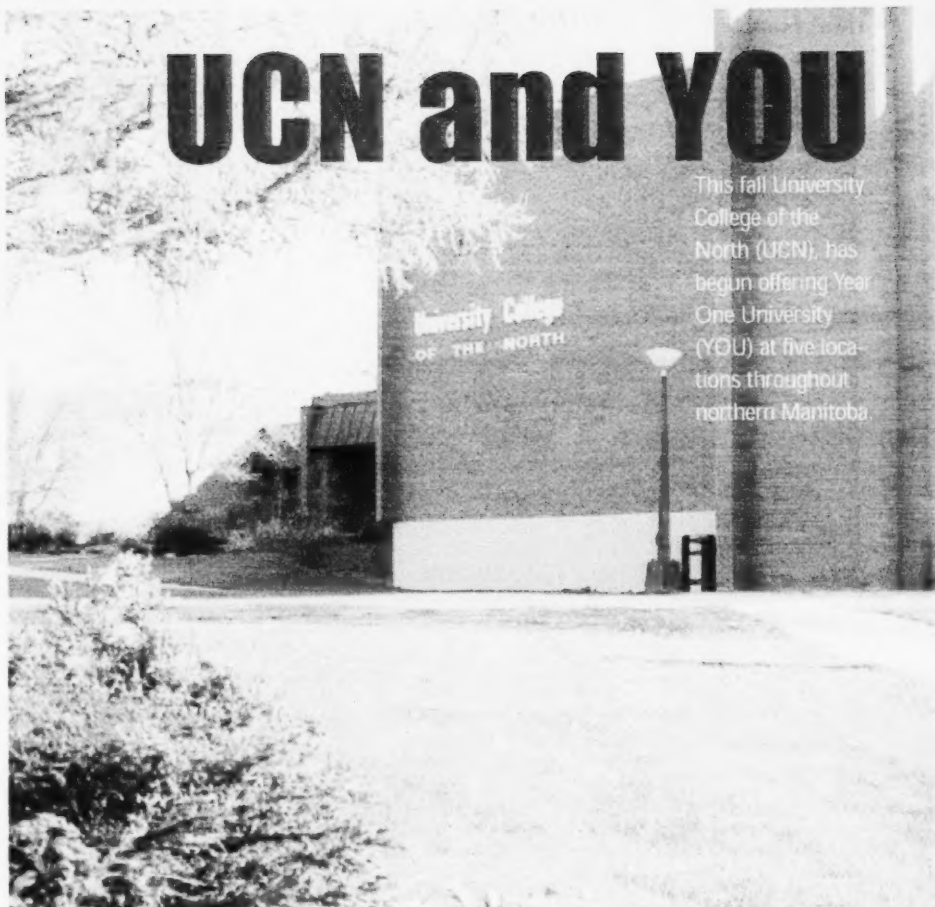
Norway House
204-359-6296

Tataskweyak (Split Lake)
204-342-2995

You can also visit UCN
online at www.ucn.ca

UCN and YOU

This fall University College of the North (UCN), has begun offering Year One University (YOU) at five locations throughout northern Manitoba.



The offering of a complete first year university in northern Manitoba represents a significant first step in the development of the new University College of the North," says Dr. Tony Bos, UCN president.

"More importantly, it represents a great opportunity for residents of northern Manitoba to acquire undergraduate education close to home, and in a setting that respects their culture," says Bos.

Year One University is being delivered in The Pas, Thompson, Flin Flon, Norway House and Split Lake. Year One University students are assisted in choosing from a curriculum that offers nine university credit courses developed by the UCN, more than 30 courses from Brandon University, the University of Winnipeg and the University of Manitoba, as well as one course from the University of the Arctic, an exciting new international university operated by a consortium of the world's northern circumpolar countries, including Canada.

Course delivery uses traditional classroom instruction and the latest distance education technology. Some course delivery is through Campus Manitoba (CMB), a consortium of Manitoba's public, post-secondary institutions. CMB provides college and university courses and programs to off-campus students in Manitoba through traditional teaching methods and modern technology like the Internet. These methods keep students and instructors in touch regardless of geography.



"We are excited to be able to deliver this scope of university programming in partnership with Campus Manitoba. It is a great example of how institutional partnerships create greater benefit for all," says Bos.

Students who complete Year One University will be encouraged to continue their undergraduate education by entering a second year in one of many faculties and programs at Manitoba and other Canadian Universities. YOU graduates will also have a choice to work toward a Bachelor of Arts (BA) degree in Aboriginal and Northern Studies that UCN plans to offer beginning during the 2006-2007 academic year. The proposed BA will become UCN's first degree offering and will feature, wide-ranging and in-depth study of Aboriginal and northern peoples and environments.

A Bachelor of Arts degree means increased awareness and understanding of one's role as a local, regional, national and global citizen. It provides a broad perspective on history, and develops important skills such as communication, research, critical thinking, problem solving, teamwork and time management. A BA degree can also lead to greater opportunities in employment or further study.

Certificates, Diplomas and Degrees in the North

When University College of the North (UCN) was established, it absorbed the facilities of Keewatin Community College (KCC). To ease concerns about the dissolution of KCC, the UCN implementation team website stated:

- UCN will not be controlled by non-northerners
- it will not be exclusively a university or a college
- it will grant degrees as well as certificates and diplomas
- it will not be restricted only to offering programs previously offered by KCC
- it will be a quality institution offering quality post-secondary programs

It makes UCN stand out as a relatively flexible educational institution. Perhaps the UCN mission statement says it appropriately: "Northern communities and people will have opportunities, knowledge and skills to contribute to an economically, environmentally and culturally healthy society, inclusive and respectful of diverse Northern and Aboriginal values and beliefs."

In practical terms, UCN is able to offer a wide range of programs that cater to northern people. The ideal is to make life better for northern people by offering education appropriate to community needs. Because it inherited much from KCC, the new institution already has an extensive calendar of course offerings to meet a full range of needs in the northern community.

Offerings include examples like the three-week certificate course in Wilderness Safety. Northerners can also consider earning UCN certificates or enrolling in a full-fledged diploma course such as the one offered by the Eco-Adventure Tourism Program.

Many university course credits earned at UCN will be transferable to other universities and colleges in Canada, but UCN will soon award its own degrees. The first will be the Bachelor of Aboriginal and Northern Studies. UCN says additional university and college programs will follow as the institution evolves.

"Higher Education, Close to Home," as the UCN promotional headline says, is now more possible. If the idea interests you, it's time you had a look at the UCN calendar of courses. Contact UCN or find their calendar online at www.ucn.mb.ca.



The NFDC catalogue has over 300 non-timber forest products including:

- boreal forest soaps, salves, lip balms
- boreal forest tea blends
- florist supplies and wreaths made with fresh balsam and cedar in season
- craft kits ranging from angels to miniature log cabins
- walking sticks and canes
- indigenous traditions like smudge products, sweetgrass, miniature dream catchers, talking sticks, and medicine bags
- antler jewellery, hand-made woodblock print cards, bird feeders, decorative and practical birch bark biting products
- bulk botanicals like Seneca root, Labrador tea leaves, highbush cranberry bark, black poplar buds, sweet flag root, bearberry leaf and more

UCN's Northern Forest Diversification Centre

"I really believe this industry holds at least part of the answers in the fight against poverty for people who live in northern boreal forest country,"

Dave Buck, Project Manager NTFP

The Northern Forest Diversification Centre (NFDC) is an unconventional education program administered by UCN and sponsored by Western Economic Diversification and Manitoba. It works to stimulate community economic opportunity for northerners by teaching people about sustainable harvest of non-timber forest products. The program also helps people learn how to add value and market the products they harvest.

"There is a lot of poverty in the north," says Dave Buck, non-timber forest product (NTFP) project manager at UCN. He's planning to retire this year and he's naturally concerned about the future of an initiative he has been a part of since it began



Dave Buck teaches mushroom selection.

as an extension program with UCN predecessor, Keewatin Community College in 2000.

Buck has trained people in nine northern communities. He says the course has developed a nucleus of about 120 people who maintain a sincere interest

in harvesting and marketing natural forest products. He points to the wide selection of products marketed through the NFDC. He also points to success stories like that of former student Brenda Gaudry of Barrows, who has built a cottage business she calls Creative Spirits. Non-timber forest products she produces sell in specialty shops throughout the province.



In recent years Dave Buck has helped NFDC participants develop and market a wide variety of non-timber forest products.

As he winds down his involvement, Buck worries about a day he foresees when both harvesters and products will have to be certified. He says because of border controversies of recent years, all agriculture producers are under pressure to produce certifiable products with traceable origins.

He also worries about what may happen when the current funding arrangements expire. Buck hopes there will be some success with efforts to move the marketing aspect of NTFP products to some kind of co-operative that is independent of UCN. He hopes that whatever the future brings, people who follow him will maintain the Northern Forest Diversification Centre as an important element of education and community economic development in the north.

"I really believe this industry holds at least part of the answers in the fight against poverty for people who live in northern boreal forest country," says Buck. "We need to create economic activity at whatever level we can." He believes this initiative has proven it can

give people a source of income, self-esteem and purpose they have not had in the recent past. "We need to keep it going," says Buck.

NFDC has generated interest from across Canada, the United States and Europe. It is currently working with the Centre for Non-Timber Resources at Royal Roads University in Victoria, British Columbia to establish a non-timber forest product network across Canada. You can contact NFDC in The Pas by phone 204-627-8596 or toll free at 1-866-627-8500 (ask for the NFDC program). Or visit www.nfdc.ca.



CAREER PLANNING



Frederick Zong of Duck Bay learns warehouse operation at Perimeter Airlines.

Frontier School Division's Career Studies Program is one of the most innovative programs in Manitoba that provides real life experiences for senior high students. Students may earn up to three credits in this program that is available from S1 - S4 and adult education. What makes this program unique in Manitoba is that it provides linkages to the real workforce in careers that may not be accessible in local communities. Frontier commits funding to transport students into urban centers such as Winnipeg, The Pas, and Thompson so that students may experience virtually any type of career they wish. A student attending school in Brochet, for instance, may be interested in the film industry. This program can make a work experience possible in Winnipeg by working with various film and theatre groups.

Real life experience is not the only outcome of this successful program, which has been running for over 10 years. This program aims to develop self-esteem and build cultural bridges between the northern students and the employers. Employers get a chance to see first hand the quality of work students bring to the workplace and students are able to show off their work habits and excitement about the world of work. This program aims to give students skills in urban living so that, if they choose to live in an urban centre (for work or school), they are familiar with things like the bus system, banking, and entertainment.

AND TRANSITION

in Frontier School Division

Post-secondary experiences are important for students who may be interested in attending a college or university. As part of the Senior 4 Career Studies program, students have an opportunity to visit the University of Manitoba, University of Winnipeg, Assiniboine College, University College of the North, Red River College and a number of smaller specialized post-secondary training facilities. Coupled with these visits are visits to frontline organizations that are involved in an area of interest. If a student wants to get into social work, not only does that student visit the university, but also has the opportunity to visit places like the Elizabeth Fry Society, Ma Mawi Wi Chi Itata, Villa Rosa, Child and Family Services, The Children's Advocate, and the law courts in order to experience a broader view of social work.

Frontier also takes advantage of opportunities in local communities. The adult education program has developed a partnership with Advanced Education and Training, Employment and Training Services and the Public School Finance Branch to build a portable classroom for the Moose Lake community. This project will allow the participants to earn apprenticeship hours toward their journeyman certificate in building construction. This program is operating out of Cranberry Portage.

Contact: Don McCaskill, assistant superintendent, Senior Years and Career Programs at 204-775-9741 or Gerry Brouze, work experience coordinator at 204-775-9741.

Frontier School Division
1402 Notre Dame Avenue
Winnipeg, MB R3E 3G5



Keenas Maud of Skownan explores law at Fillmore Riley.



Michael Thompson learns about being a computer technician at Powerland Computers.

FINDING

Post-Secondary Studies



Where there is a will to go to school,
there is usually a way to pay for it



Post-secondary education can be expensive. Each year of study may cost several thousand dollars or more, depending on the course fees and the cost of books. If you need to travel or live closer to a school, your cost can increase greatly. Although the best way to pay for your post-secondary education is with money saved by you or your family, for many people, this is simply not an option.

But where there is a will to go to school, there is usually a way to pay for it. You should investigate all possibilities such as loans, grants, bursaries and scholarships.

Loans are money that will need to be repaid, whether from a relative, a bank or the Canada/Manitoba Student Loan program. Bank loans often require regular payments and interest beginning from the time you make the loan. If you receive Canada and Manitoba student loans, you will not have to make payments until your studies have ended. Every loan has its own conditions, so you must check with lenders to be sure you understand what interest and payments will be required and when.

Grants, bursaries and scholarships are education money that you do not pay back. Usually you must apply for this money.

Grants may be provided to students with specific financial needs. This would include students who support dependents or students who have disabilities. Students could qualify for a grant when they apply for a Canada/Manitoba Student Loan.

Bursaries are often education funding for students who have a high financial need. They are sometimes provided by private interests or governments as a way to reduce the cost of tuition and promote specific educational pursuits.

Scholarships are generally awarded to students who have demonstrated scholastic achievement or distinguished themselves in some other area of life. Although scholarships are sometimes awarded automatically, they are most often applied for by the student.

A list of bursaries and scholarships are available from the awards office at the college or university you want to attend. Believe it or not, some financial awards are not made in some years, simply because there are no applicants. Why not try?

Aboriginal Student Financial Assistance

Manitoba Student Aid administers several programs to assist Aboriginal and northern students with the cost of post-secondary education:

Prince of Wales/Princess Anne Awards
\$200 per year is available if you are a Canadian Aboriginal student studying full-time in Manitoba (or a program elsewhere in Canada not available in Manitoba) and you are assessed with at least a dollar of financial need. You are not required to take out a student loan to receive this award, but you must fill out a student loan application and declare your Aboriginal ancestry to have your need assessed.

Fly Higher! - Aboriginal Education Awards
can provide up to \$3,000 for university programs or \$1,500 for college programs. For more detail, and to fill out an application, contact the Awards Office/Aboriginal Services at the college or university you plan to attend in Manitoba.

ACCESS - Provides bursaries to students selected by an ACCESS program. If you are eligible, you receive 60 per cent of your financial need in Canada Student Loans and the balance is provided by ACCESS bursaries. Your total financial need is met. You can apply directly to the ACCESS program office at a Manitoba college or university.

Remember, you may qualify for financial assistance from Student Aid even if you have other funding such as Band funding or Metis funding.

Manitoba Student Aid

If higher education is your aim, consider Manitoba Student Aid. When you apply, you are automatically considered for different loans and grants.

If you are eligible for the Canada Student Loan program you may receive up to \$210 per week of full-time study. If you are also eligible for the Manitoba Student Loan you may receive up to \$140 per week of full-time study. If you qualify for the maximum amounts, the two loans combined provide up to \$350 per week of full-time study.

In some cases, special grants are available to students with high needs, students with dependents, students from low income families, or students with disabilities. Manitoba Student Aid may ask you to complete a separate application for such grants once your application for the Canada/Manitoba student loan has been reviewed.

If you are attending school part-time, you may qualify for part-time loans administered by Manitoba Student Aid. But remember, loans must be paid back. It is best to borrow only as much as you need to complete your education.

Manitoba Bursary and the Canada Millennium Scholarship Bursary
You are automatically considered for these programs, which help reduce your student loan debt to about \$6,300 per year, when you apply for and receive Canada and Manitoba Student Loans.

Check the website www.studentaid.gov.mb.ca or read the brochure included with the Student Aid application for more details. Remember, you can also apply online.

Contact Student Aid

Winnipeg Office
401-1181 Portage Avenue
Winnipeg, MB R3G 0T3
204-945-6321

Westman Regional Office
3rd floor, 340-9th Street
Brandon, MB R7A 6C2
204-726-6592

Call toll free in Manitoba
(outside Winnipeg and Brandon)
1-800-204-1685

TTY Phone
204-945-8483 (in Manitoba)
www.studentaid.mb.ca



Aboriginal Student Assistance Encourages Success

Last year, 19-year-old Tyler Fourre entered the University of Manitoba (UM) Engineering Access Program (ENGAP). He also applied for and received a bursary for the 2004/2005 academic year from the Helen Betty Osborne Memorial Foundation (HBOMF).

ENGAP provides academic, personal, social and financial support to Aboriginal students within the UM engineering faculty. Assistance includes summer job and career placement, housing, childcare and transitional courses that help students adjust to university life.

Manitoba established the Helen Betty Osborne Memorial Foundation Act in 2000 to promote the memory of Helen Betty Osborne and provide bursaries and scholarships to assist deserving Aboriginal students residing in Manitoba and enrolled in post-secondary studies in Manitoba. Each year HBOMF awards bursaries sponsored by Manitoba Aboriginal and Northern Affairs for students enrolled in engineering or civil engineering technology programs.

In 1971, Helen Betty Osborne was a 19-year-old from Norway House attending high school in The Pas, Manitoba and dreaming of becoming a teacher. Her death and the subsequent murder investigation became a focus of the Aboriginal Justice Inquiry. The inquiry report concluded racism, sexism and indifference affected the relationship between Aboriginal people and the justice system. The HBOMF aims to promote healing by honouring the memory of

Helen Betty Osborne and helping to eliminate barriers of racism, sexism and indifference.

"It was a big transition to come from a small town to the city," says Fourre, who attended primary school in Cormorant and graduated from high school in The Pas. He believes ENGAP and HBOMF support helped him considerably.

Successfully completing his first year of university, Fourre worked this past summer with the Local Government Development Division of Manitoba Aboriginal and Northern Affairs in Winnipeg. He hopes to graduate as an environmental engineer in three more years. Then he plans to work in a northern community. He's pleased to set a good example for younger brothers and sisters back home.

Engineering Access Program
Faculty of Engineering
University of Manitoba
Winnipeg, Manitoba R3T 5V6
Tel.: 204-474-9872
Fax: 204-474-7518
Toll Free: 1-800-432-1960
Extension 9872
E-mail: bmathia@cc.umanitoba.ca
www.umanitoba.ca/academic/faculties/engineering/access/

Helen Betty Osborne
Memorial Foundation
Sandra Delaronde, Administrator
2nd Floor Woodsworth Bldg.
405 Broadway
Winnipeg, Manitoba R3C 3L6
Tel.: 204-945-3909
Fax: 204-948-2150
E-mail: sdelaronde@gov.mb.ca
www.helenbettyosbornefdtn.ca

Water Main **REPAIR**

Public Works

Public works foreman in Pelican Rapids for five years, Harvey Leask provides knowledge and reliable service for his community. He recently repaired a water main break in his community. Harvey thanks the community of Sherridon for quickly supplying special pipe needed in the repair. Borrowing pipe in the north and shipping its replacement from the south saved time for Pelican Rapids.

Repair Steps

Shut down water supply:

- n ensure the heat trace if used, is turned off at the electrical panel
- n perform the lockout/tag-out procedures for the water distribution and heat trace at this time

Inform authorities and residents:

- n hot water tanks should be turned off at this time to prevent heating element damage
- n inform region's Drinking Water Officer (DWO) and technical and public works consultant
- n provide a temporary source of safe drinking water for community residents
- n a boil order advisory may be issued by the Medical Health Officer (MHO)

Procedures involved:

- n follow relevant Workplace Safety and Health Manual procedures during repair
- n lockout/tag-out, excavations and shoring, personal protective equipment, pipefitting, pumping liquids, barricades, disinfecting of water mains and workplace hazardous materials information system (WHMIS)

Repair water main:

- n a technical and public works consultant will recommend the pipe fittings required
- n pump excess water from the trench. If a septic truck must be used, water system disinfection will be required
- n when pipes are dry, replace damaged portions with new pipe
- n ensure pipes are clean and dry before clamping. Slide clamps over the pipe and fit the new piece between cut ends. Slide clamps until centered over joints. Tighten the five or six bolts around the clamp in a proper cross-sequence
- n heat trace repairs should only be done by a certified electrician
- n once completed, test repairs under pressure

Backfill excavation:

- n pack sand firmly under pipe to support it
- n place loose sand at least a foot deep on top and alongside the pipe. Foam insulation panels may be placed over the sand to provide added protection against freezing
- n fill trench with the excavated material. Do not pack material, mound it and allow it to settle naturally

Flush dirt from lines:

- n open flush-out port at the end of the system to remove any particles that may have entered the system during repairs

Disinfect water supply system:

- n chlorinate repaired water lines using American Water Works Association (AWWA) specifications and information provided by the DWO
- n a technical and public works consultant will provide assistance with the repairs

Flush chlorine from lines:

- n open a flush-out port at the end of the system and let water flow until you detect a smell of chlorine
- n do a free chlorine test and close the valve. Sample should be bright red when reagent is added. Continue flushing until residual chlorine level is between 0.1 mg and 1.0 mg per litre

Test water:

- n after flushing, take samples at the end of the system and from one or two other points on the system and send in for analysis every two days
- n once two consecutive results show no contamination, the boil order advisory may be lifted by the MHO
- n inform residents when repairs are complete and it is safe to use the water. Turn hot water tanks back on

Public Works will be a regular Community Contact feature on maintaining community facilities and equipment. Thanks to ANA technical and public works consultant Albert Sandberg of The Pas for his work preparing this column.

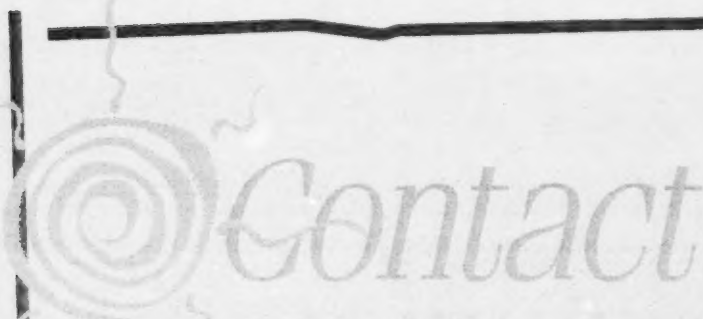
Certification Corner

This edition of Certification Corner is taken from the Operator Certification Study Guide, available from the American Water Works Association (AWWA) bookstore (800-926-7337 or www.awwa.org/bookstore). The study guide contains hundreds of questions and answers that are sourced for more information, as well as several practical appendices. The questions were developed according to the Association of Boards of Certification need-to-know criteria. The guide is intended to give potable and waste water plant operators practice answering questions that are similar in format and content to the questions that appear on certification exams.

- 1) Which of the following service line materials is not flexible?
 - a) copper
 - b) galvanized iron
 - c) lead
 - d) plastic
- 2) What is the pounds per square inch, (kPa) at the bottom of the tank, if the water level is 33.11 ft, (10.09 m), deep?
 - a) 14.3 psi, (100 kPa)
 - b) 28.6 psi, (197 kPa)
 - c) 33.1 psi, (228 kPa)
 - d) 76.5 psi, (527 kPa)
- 3) Where should bacteriological samples be collected in the distribution system?
 - a) uniformly distributed throughout the system based on area
 - b) almost always from the extreme locations in the system, but occasionally at other locations
 - c) at locations that are representative of conditions within the system
 - d) uniformly throughout the system based on population density
- 4) For best results, what is the minimum flushing velocity when using the unidirectional flushing method?
 - a) 3 ft/sec (0.91 m/sec)
 - b) 5 ft/sec (1.52 m/sec)
 - c) 7 ft/sec (2.13 m/sec)
 - d) 10 ft/sec (3.05 m/sec)
- 5) Fire hydrants should generally be set back from the curb by at least?
 - a) 1 ft (0.30 m)
 - b) 2 ft (0.61m)
 - c) 3 ft (0.91 m)
 - d) 4 ft (1.22 m)
- 6) Which of the following best defines the term stray-current corrosion?
 - a) relation between a metal and water
 - b) decomposition of a metal by its reaction with acidic water
 - c) decomposition of a material caused by an outside current
 - d) reaction between two different metals with water acting as an electrolyte
- 7) What is the difference between a weak acid and a strong acid?
 - a) amount of hydrogen ions released
 - b) amount of buffering released
 - c) amount of hydroxyl ions released
 - d) amount of carbonate ions released
- 8) Find the total head in feet (m), for a pump with a total static head of 19 ft (5.79 m) and a head loss of 3.7 ft (1.13 m)
 - a) 5.1 ft, (1.55 m)
 - b) 15.3 ft, (4.66 m)
 - c) 22.7 ft, (6.92 m)
 - d) 70.3 ft, (21.43 m)

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ANSWERS: 1-B, 2-A, 3-C, 4-D, 5-B, 6-C, 7-A, 8-C



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Community Council members, community residents and departmental staff are strongly encouraged to submit feedback, comments, questions, suggestions and ideas to the editor.